

Committee(s):	Date(s):
Epping Forest & Commons	21 st November 2016
Subject:	Public
Epping Forest 5 th Grazing Monitoring Audit Report	
Report of:	For Decision
Superintendent of Epping Forest (SEF 49 /16)	

Summary

Cattle grazing took place across the Forest and Buffer Lands this year with an average number of 137 animals during the grazing season. The two main areas encircled with invisible fencing, Fairmead and Chingford Plain, were grazed through the summer until October. Two other Forest sites were also grazed and preparations to introduce cattle at three new sites from 2017 were completed. Warren Wood Slope, however, had to be cut by machinery due to lack of grazing this year.

The fifth annual grazing audit by the Independent Grazing Assessor is at **Appendix 1**. This year the report focused on the Fairmead extensive grazing area and the need to ensure that cattle in the Forest could be managed extensively. The key points of his assessment are that the number of cattle remains insufficient for fully effective grazing due to a number of factors but that the range of sites being grazed and ready to receive cattle next year is encouraging. As grazing expands, new monitoring techniques allowing greater coverage should be considered within resource constraints.

In total, during 2016, the cost of monitoring of grazing impacts by all consultants was £3,992, a reduction in expenditure of 64% from 2015, reflecting a significantly reduced monitoring effort in response to budget cuts.

Recommendation(s)

Members are asked to:

- note the observations of this 5th Grazing Audit;
- approve the change from an annual reporting cycle to a longer review period to allow the Superintendent to commission further reports from the Independent Assessor as appropriate, unless otherwise directed by your Committee.

Main Report

Background

1. The appointment of an Independent Grazing Assessor was approved in July 2010 (EFCC Report SEF 21/10) to give an objective overview of the impacts of grazing

on the Forest habitats, provide additional scientific advice and to review the monitoring programme. The Assessor's previous four reports were received by Committee in November 2012, November 2013, January 2015 and January 2016. The requirement for this 5th audit report based on a single, shorter visit during summer 2016 was approved by Committee in January 2016.

Current Position – 5th grazing audit report (see Appendix 1)

2. This report summarizes the main points of the 5th Audit Report based on one visit between 5th – 6th July by the Independent Assessor, Dr Peter Dennis, Reader at Aberystwyth University and Secretary of The Royal Society's *UK Biodiversity Science Committee (UK BSC)*. His full 5th Audit report can be found at Appendix 1.
3. **Cattle numbers**: the combined total number of cattle, in the two herds (Red Poll and English Longhorn), averaged 137 animals across the Forest and Buffer Lands during 2016. All Buffer Land grassland sites requiring grazing at Copped Hall and Warlies Estates were grazed. On the Forest itself, four key sites were grazed this year by 53 cows.
4. The largest Forest site (120ha) covered Fairmead and Bury Wood where up to a maximum of 28 Red Polls grazed extensively throughout the summer in the area encircled by the combination of invisible and wooden fencing. This was the main focus of the 5th Audit Report.
5. At the other main invisible-fenced site eight Longhorns grazed Chingford Plain. In addition, there were seven Longhorns present from August to October at the important heathland of Long Running and 10 Longhorns at Fernhills during September and October. Full details can be found in Table 1 of the report at Appendix 1.
6. Two sites, Warren Wood Slope and Deershelter Plain, where grazing was planned, were not completed this year due to problems with the grazing contract. Warren Wood Slope was mown instead. No new grazing sites were managed with cattle this year but preparations, including the provision of water connections and/or fencing infrastructure (invisible or standard stock fencing), were completed in preparation for 2017 at Trueloves (Forest Compartment 17), Forest Compartment 9 (Big View/Sunshine Plain N) and Yates' Meadow (Forest Compartment 25).
7. **The 5th Audit Report** concluded that:
 - the roll-out of grazing across many compartments over the last two years was a significant step forward;
 - the number of cattle so far remained insufficient to graze the vegetation's annual productivity and the succession of woody plants in open habitats;
 - a number of recommended actions during the 2015 and 2016 audits, to encourage extensive grazing and the wide movements of cattle, had already been instigated with some success, including the new water supplies;

- vegetation monitoring, particularly of important or scarce species, should be expanded and unmanned aerial vehicles (“drones”) surveys could be one new method to ensure greater coverage;
 - long-term naturalistic grazing will be better achieved through cattle that have the full range of Forest vegetation types included in their diets from a young age and other grazers, such as wild deer populations, need to be part of the picture to ensure retaining the complexity of structure.
8. **Student projects:** no further student projects were put forward this year but the projects from 2015 yielded two interesting reports, one from the Aberystwyth BSc (Honours) project supervised by Dr. Dennis (Broom 2016) and another supervised by Cranfield University as part of the European-wide *AgForward* Project (Lopez 2015).
 9. **GPS monitoring:** a new GPS provider was used this year to try to improve the reliability of the system. There were improvements and GPS position records (or “heat maps”) covered more animals and more time intervals. One of the detailed “heat maps” is illustrated in the 5th Audit Report. However, some issues remain with a number of GPS units malfunctioning during the year. These are currently being checked by the manufacturer so as to provide a solution for 2017.
 10. **Invisible Fencing (IF) project:** considerable interest continues to be shown in the project and Natural England Land Management Advisers have visited the Forest for an induction into the system.
 11. In addition, a rival system to *Boviguard* IF has been developed by Surrey Wildlife Trust (SWT) and is currently being tested at several sites including at Burnham Beeches and Epping Forest. This promises to have some advantages and yet it can be used on the same loops that have already been installed on the Forest.
 12. The Department of Environment, Food & Rural Affairs (Defra) has taken a close interest in the project as it is considering IF for grant-aid as part of the new Countryside Stewardship. In response to this SWT officers proposed that IF guidelines for land managers would be needed. As a result, your officers at Burnham ~Beeches and Epping Forest have worked with SWT to produce a national User’s Guide, a draft of which has been put before Defra and the Chief Veterinary Officer this autumn.
 13. Finally, SWT and City of London officers will be participating in the preparation of a video question and answer session on IF at the Landscape Institute in December. The video is then likely to be posted on the internet to provide information to those interesting in using IF on their land in the future.

Options

14. The fieldwork in the rolling 5-year monitoring programme will continue to be reviewed annually within cost and time constraints. The auditor considers the monitoring programme to be satisfactory. Therefore, it is intended to continue with its main elements, including an annual census of the orchid population at Long Running and vegetation monitoring with quadrats. An expanded programme of fixed point photography will be considered if further assistance can be obtained through volunteers or internships in the future.

15. As in the last few years, additional assistance will be required from specialist consultants, although any work will be reviewed in the light of current budget reductions. The costs for this will be reviewed with the aim of keeping budget within a £6,000 total in 2017 and, thereby, achieving a greater than 45% reduction in spending compared with the base year of 2015 (see *Financial Implications* section below).
16. After 5 years of the grazing audit the early grazing programme impacts have now been assessed in some detail. Longer term impacts on vegetation and the wood-pasture structure, as the Longhorn herd expands, could be audited adequately using longer intervals between the Independent Assessor's visits. This would be a pragmatic approach given the constraints on budgets.
17. Options for recording GPS positions of cattle are being reviewed in the light of results from the current supplier's examination of the faulty GPS units. It is hoped to have more of the units up and running in 2017 and thereby achieve greater coverage, with at least 30 cows in two sites. These GPS data will be used to build up "heat maps" for future grazing impact assessments and vegetation change analysis which will form the basis of MSc student projects.
18. Finally, the new invisible fencing (IF) system pioneered by SWT may offer a useful addition or alternative to *Boviguard*, subject to the outcome of any appropriate procurement exercise. It should allow the larger areas (with larger IF loops) to be grazed sooner, provide some back-up and may in the long-term reduce costs. In addition, the additional fencing and water supplies installed in 2016 should allow grazing over new sites and extended areas in 2017.

Proposals

19. Working within the resources outlined above, it is proposed to continue with the existing grassland quadrats, wood-pasture transects and the orchid monitoring. Recording by fixed-point photography by staff and volunteers will be reviewed and expanded at certain sites where possible.
20. Following this 5th Report it is further proposed that the annual cycle of assessments is amended to the commissioning of reports at intervals covering longer review periods. Review periods would be determined by the Superintendent, unless otherwise directed by your Committee, to ensure that any significant changes to the grazing regime, to external grant-aid requirements or to important flora and fauna monitoring indicators, were examined by the Independent Assessor at an appropriate time.

Implications

21. **Corporate & Strategic Implications:** the options and proposals in this report meet the *City Together* Strategy by contributing to "a world class City that promotes and enhances our environment". In relation to the Open Spaces Department's Business Plan Improvement Objectives this report fulfills the objective to "promote sustainability, biodiversity and heritage".
22. **Legal Implications:** there are no legal implications.
23. **Property implications:** there are no property implications.

24. **Financial Implications:** this year's (2016's) vegetation monitoring work and independent grazing assessment costs amounted in total to £3,992, not including staff costs/time. This monitoring work is important for assessing the Favourable Condition of the Site of Special Scientific Interest (SSSI) habitats.
25. The work included £2,440 for the independent assessment visit and report, a 32% reduction in costs compared with 2015 because of a shorter duration visit. No vegetation transect surveys were carried out this year as this work was cut due to the need for savings. These transects will be repeated but on a longer cycle. The continuation of the annual Heath Spotted Orchid census and analysis cost £1,482 (an 18% reduction in costs from 2015). Other work was carried out by Conservation staff and volunteers.
26. The future costs of any monitoring work and the grazing assessor's time would continue to be funded from local risk budgets. It is proposed that there will be no audit next year and that monitoring would be confined to the orchid census so that costs would be kept within a further reduced budget of no more than £6,000.
27. **HR Implications:** any monitoring volunteers would be recruited through the current volunteer scheme and induction process.

Conclusions

28. Cattle numbers on the Forest remained insufficient during 2016 to achieve the necessary level of grazing. Nonetheless, the Independent Grazing Assessor considered that the range of sites grazed over the last two years has been promising expansion of the grazing project. Further he considers the monitoring to be satisfactory. Future grazing audits could be carried out over a longer review period now that grazing has been established and while the Longhorn herd grows in size.

Appendices

- **Appendix 1** – Independent Grazing Assessor's 5th Audit Report on status of cattle grazing and associated habitat monitoring across Epping Forest by Dr Peter Dennis, University of Aberystwyth, 13th October 2016.

Background Papers:

- *Epping Forest Grazing Strategy 2006 (updated for Branching Out Project in 2008)*
- *SEF 25/07 EF&C Committee report on: the 2nd Public Consultation on Grazing*
- *SEF 21/10 EF&C Committee report: Ecological Monitoring for Grazing*
- *SEF 35/12 EF&C Committee report of 5th November 2012: Epping Forest Grazing Monitoring Audit 2012*
- *SEF 33/13 EF&C Committee report of 13th November 2013: Epping Forest Grazing Monitoring Audit 2013*
- *SEF 05/15 EF&C Committee report of 9th January 2015: Epping Forest Grazing Monitoring Audit 2014*
- *SEF 05/16 EF&C Committee report of 25th January 2016: Epping Forest Grazing Monitoring Audit 2015*

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